



Relief Activities of CSIR to Cylone “Fani” Victims of Odisha



immt

CSIR-Institute of Minerals and Materials Technology
Council of Scientific and Industrial Research
Bhubaneswar-751013, Odisha



CSIR labs played a key role during Cylone Fani: DG

20th May, 2019



‘It was a war-like situation and our labs helped in disaster management’

It was not just the Union Ministry of Earth Sciences and the Indian Meteorological Department (IMD) which played a key role in tackling the recent Cylone Fani which hit Odisha, but several labs of the Council of Scientific and Industrial Research (CSIR) too pegged in. “The cyclone was very devastating and apart from predictions, and where it would hit, these were done fantastically. But, what do you do before and after it hits? This is where our institutions played a key role which has been missed by many,” said CSIR Director General Shekhar C. Mande on Friday.

It begins with vulnerable sections shifted to 200 sturdy cyclone shelters built by the CSIR’s Structural Engineering Research Centre (SERC) in Chennai and implemented by the Indian Red Cross which could house up to 4,000 people at a time and keep them safe.

After the cyclone passed, it left behind a trail of death and destruction and there were many people seeking potable water and food. Here too, the CSIR institutions contributed their mite. “The mobile water purification bus developed by Bhavnagarbased Central Salt and Marine Chemicals Research Institute (CSMCRI) housing a water purification and desalination system generating 4,000 litres per hour moved into all the affected villages,” he said. The water purification vehicle could purify any kind of contaminated water, including silt-laden left by floods, and brackish water along coastal areas to make it potable by removing viruses and bacteria, explained Mr. Mande.

Similarly, the Central Food Technological Research Institute (CFTRI), Mysuru, and the Institute of Himalyan Bioresource Technology (IHBT) too joined the relief and rehabilitation efforts in supplying lakhs of food packets which could be stable for some time.

“It was a war-like situation and our labs helped in disaster management,” added Dr. Mande.

Dr. Shekhar C. Mande
Secretary, DSIR and DG, CSIR

Published in:
[The Hindu](#)



From the Director's Desk



On May 3 CSIR-Institute of Minerals and Materials Technology (IMMT) campus at Bhubaneswar was devastated by cyclone Fani. CSIR-IMMT is well known for its lush green campus and vegetation all round. In the aftermath of Fani nothing remained and the surroundings were unrecognizable. Trees uprooted every 50 m on the road and every 3 m on the green belt area of the campus. It took us some time to fathom the carnage of cyclone Fani. Along with it started long power cuts as expected and water shortage due to the breaking of pipelines and power outage. Although it took 5 days to get back the power, water supply was restored within 24 hour. This was possible due to timely maintenance of diesel generator set as it was operational round the clock for 5 days and repairing of broken water pipelines by the Engineering Services Department. We were one of the luckiest ones in Bhubaneswar to get electricity connection in five days as our lines are all underground and not damaged by the fallen trees. Next day to cyclone Fani, all the staff members were on the street in peak summer to help each other to clear all the fallen trees to give access to the Laboratory from the colony homes and the Main Gate. It took us two days to give access to Laboratory to Vani Vihar and NH Gates. We did not have any experience in using a chain saw to cut trees and dispose it. At this point it looked like a herculean task next to impossible to accomplish, but due to constant effort of the Engineering Services Staff, Laboratory Technical and

Workshop Staff backed up by immaculate planning of the Scientists it was possible. This would have not possible without the constant guidance and encouragement and support of Dr Shekhar C. Mande, DG CSIR. On his behest NDRF team started operating in our campus from the 5th day when our moral was getting down as we were on the job continuously for five days being professionally untrained to handle such humongous disaster. The help from NDRF team could have not come at a better time than this and they worked for next 20 days to clean all the debris only from roads, footpath and some cases precariously leaned tree in many colony houses and Lab area. They could not touch green areas like Bamboo Garden, Volleyball court, Children Park, Green Belt opposite PGRP hostel, and Lab area etc. It will take a minimum of six months to clear all the fallen trees and subsequent rehabilitation and replantation of trees. The support I received from the staff members cannot be described by any words and I shall be indebted to them for their hard work, perseverance, patience, discipline and planning in difficult times as outside the campus people were equally or in a more difficult situation than us due to similar situation and not in a position to seek for help.

As we were recovering, NDRF team started working in our campus to clear out debris and the electricity connection restored, we started working on relief work outside IMMT campus in Konark, Katakpur, Neemapada, Satyabadi, Brahmagiri and Puri, the most affected areas by cyclone Fani. My first visit to fisherman villages in Konark and Puri, situated close to the sea shore where the land fall of Fani actually happened, was a horrible experience. By this time the people of the villages had returned from the nearby cyclone-proof shelter. On my arrival,



the people actively showed me around the village to demonstrate the amount of damage that had been done including their houses and surroundings, the boat and religious places. Indeed, I visited all the places to solace them and record all the damages across the villages. Surprisingly they wanted to fix their religious worship places, community centre, their homes and the fishing boats in the order of preference as mentioned. Government of Odisha already made arrangements for food on a regular basis through Corporator and Assistant Block Development Officer and later through assistance provided by CSIR and many other organizations. In the meantime, our sister labs, e.g., Central Food Technology Research Institute (CFTRI) Mysuru and Central Salt, Marine and Chemical Research Institute (CSMCRI) Bhavnagar contacted us to plan for mega relief operation of CSIR (Council of Scientific & Industrial Research) through IMMT sending - Ready to eat (poha / upma)- from Mysuru and Water Bus from Bhavnagar for providing water from any type water sources, e.g, saline, turbid, used, washed. The first batch of nine ton -Ready to eat- food material from CFTRI arrived on May 7 and was immediately distributed to the Satyabadi area of Block Development Office as per the requirement given by the Puri Collector. We found Puri Collector's office working round the clock and very efficiently. Next batch of eight ton ready to eat food material was sent on May 9 and we distributed it to Katakpur with the help from Red Cross as the situation became tense. The self sufficient water bus, generates the electricity required for membrane purification unit, arrived on May 8 along with six engineers and two drivers after driving through several states of India. We immediately placed it in Katakpur having a small stream of water source with help from state Public Health Engineering Organization (PHEO). Water produced at 6000 litres per hour were collected by small tankers and distributed in different blocks and villages where roads are narrow and big water tanker or the water bus cannot reach. The water bus shifted to Satyabadi area for a week as per the

requirement of BDO and PHEO instruction after three days. Thereafter it was taken to different places of Puri district for more than 15 days to supply clean water. Mega relief operation of CSIR happened from Institute of Himalayan Bioresource Technology (IHBT) Palampur lab. They sent one lakh meals containing canned 'kichdri' and energy bars weighing sixty seven tons. This has been sent in batches of seven to eight tons and we distributed ourselves with the help from Puri Collector's Office in Government Schools of Puri district by inviting school children and their parents. I participated in the distribution of canned food and energy bar to school children and parents in Bhishwambhar Vidyapith, Puri. We always felt that we should distribute food material on our own rather than sending it to designated places for distribution. I had a wonderful experience of giving during this period starting early in the morning and finally coming to the institute to do regular work and ending the day with loads of satisfaction. CSIR sent two batches of Scientists from Structural Engineering Research Centre (SERC) Chennai and Central Building Research Institute (CBRI) Roorkee to study and advise state Government to secure the tall structures, such as high tension power line and quick rehabilitation of hut structures.

The report on CSIR Relief Work for Fani victims captured in print media is documented in this booklet for the Ministers, Policy Makers, Administrators, Managers, Officers, Scientists and public at large for their perusal, record and information. The Council of Scientific and Industrial Research in its 77th year of existence always has been working for the common man to improve their daily life, be it through industrial research and development, societal work and human resources development.

Jai Hind!

Suddhasatwa Basu

Director, CSIR-Institute of Minerals and Materials Technology

Bhubaneswar



CSIR-IHBT

13th May, 2019

Scientists prepare 20 tonnes of food, energy bars for cyclone Fani victims

TNN | May 13, 2019, 12:51 PM IST



DHARAMSHALA: Scientists in Himachal Pradesh at CSIR-Institute of Himalayan Bio-resource Technology (CSIR-IHBT), Palampur near here are going to supply one lakh units of ready to eat canned food and high energy and protein bars of 20 tonnes for distribution to the victims of Cyclone Fani hit areas in Odisha.

Dr Sanjay Kumar, Director of CSIR-IHBT, informed that institute has technologies for preparation of ready to eat foods of global standards and in such tragic circumstances it is the duty of national institutes to come forward and support the affected population with their need based technologies and products.

He further stated that similar support of ready to eat food products was extended to the victims of during Kerala floods in August 2018.

"One lot of the energy bars and food canes has been dispatched to the affected areas, other will be sent by this week" added Kumar.

The institute as part of R&D program has developed technologies for commercial production of several ready to eat traditional food products and functional foods targeting malnutrition and life-style related disorders such as energy bars, high protein drink mixes, Spirulina and Shiitake based food and value added Tea products, crispy fruits and many others that are commercialized and available for interested entrepreneurs.

The severe cyclonic storm named Cyclone Fani had recently made a landfall impact on May 3, 2019 in coastal areas of Odisha and around one million people have been evacuated there.

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[Times of India](#)

75 Years of
CSIR Touching Lives



CSIR-IMMT

12th May, 2019

IMMT brings its expertise to help Fani victims

Sandeep Mishra | TNN

Bhubaneswar: The research and development institutions under Council of Scientific Industrial Research (CSIR), New Delhi, has come forward to help the people living in Cyclone Fani-hit areas with its technological products and expertise while CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar, got the job of coordinating the relief work here.

The products include a consignment of 15 tonnes of ready to eat and instant food items produced by the Central Food Technological Research Institute (CSIR-CFTRI), Mysore. Of these, 2.5 tonnes (around 85 boxes) of ready to eat packets have been handed over to



The mobile water purification unit at work in Kakatpur, Puri district

the Konark Notified Area Council on May 7. The officials said it could be distributed to around 2,500 families in the cyclone-affected areas in and around Konark.

About 2 tonnes of food packets were handed over to

the block development officer (BDO) of Satyabadi in Puri on May 8 for around 2,000 families. The CSIR-CFTRI has despatched 11 tonnes of ready to eat food packets, which will arrive here soon.

Besides, a mobile water pu-

rifcation unit — a water bus by the Central Salt and Marine Chemicals Research Institute (CSIR-CSMCRI) Bhavnagar, Gujarat, — has been sent to Kakatpur in Puri to provide RO grade purified drinking water from surface water resources. The water bus, using an indigenous membrane technology, could transform 4,000 litres of brackish water and 1,000 litres of seawater into potable drinking water in an hour.

“The unit is completely self-sustainable and does not require any external power for its functioning. The complete system runs on the power generated by the vehicle itself, which is coupled with a generator transmitting power to run the unit. The water bus has been stationed at Kakat-

pur for the supply of drinking water,” said IMMT Director Suddhaswata Basu.

He said more than 2,000 villagers living across 10 to 12 villages around Kakatpur area were given safe drinking water. “The rural water supply and sanitation bodies have coordinated with the CSIR-CSMCRI and CSIR-IMMT teams for the successful distribution of potable water to the affected people,” the director said.

IMMT officials told TOI that the CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur, will send 1,00,000 cans (425 grams each) of ready to eat meals while IMMT itself will despatch 500 Terafil Water Filters.

Meanwhile, the scientists at IMMT has developed a user friendly green technology — TERAFIL — for the purification of both surface and ground water at minimal cost. It can be used exclusively for removal of excess iron, turbidity and bacteriological contamination through filtration in an easy and affordable way.

Sources said two other CSIR institutes — Structural Engineering Research Centre in Chennai and Central Building Research Institute in Roorkee — have also come forward to provide technological know-how for constructing cyclone resistant buildings and tower structures as well as deploy units for mass evacuation during disasters like flood and cyclone.

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35 Years of
CSIR Touching Lives

1942-2016



CSIR-IMMT

12th May, 2019

‘ପଣି’ ବିପନ୍ନଙ୍କୁ ବିଶୁଦ୍ଧ ଜଳ ଯୋଗାଇଛି ଅତ୍ୟାଧୁନିକ ଜଳ ବିଶୋଧନ ଗାଡ଼ି



ଭୁବନେଶ୍ୱର, ୧୧.୫ (ଭୁ.ପ୍ର): ପଣି ବାତ୍ୟାର ତାଣ୍ଡବ ପରେ ପାଣ୍ଡିତଳ ନିକଟରେ ଆଧୁନିକ ଜ୍ଞାନକୌଶଳ ସହିତ ପହଞ୍ଚିଛି ଭାରତୀୟ ପଦାର୍ଥ ବିଜ୍ଞାନ ଅନୁଷ୍ଠାନ (ଆଇଏମ୍‌ଏମ୍‌ଟି) । ବାତ୍ୟା ପରେ ବିଶୁଦ୍ଧ ପାନୀୟ ଜଳ ପାଇବା ପାଇଁ ଲୋକଙ୍କ ମଧ୍ୟରେ ରୋଷ ଦେଖା ଦେଖିଥିବା ବେଳେ ଏହି ସମୟରେ ଆଇଏମ୍‌ଏମ୍‌ଟି ଦ୍ୱାରା ନିର୍ମିତ ଅତ୍ୟାଧୁନିକ ଭ୍ରମ୍ୟମାଣ ଜଳ ବିଶୋଧନ ଗାଡ଼ି ବାତ୍ୟା ପ୍ରଭାବିତ ଲୋକଙ୍କର ଏହି ଆବଶ୍ୟକତା ପୂରଣ କରୁଛି । ପୋଖରୀ ଗାଡ଼ିଆ ଭଳି ମଇଳା ପାଣିକୁ ସମ୍ପୂର୍ଣ୍ଣ ସଫା କରି

ବୈଜ୍ଞାନିକଙ୍କ କହିବା ଅନୁସାରେ ଏହି ଭ୍ରମ୍ୟମାଣ ବିଶୋଧନାଗାର ନଦୀ, ନାଳ, ପୋଖରୀ, ଗାଡ଼ିଆ ସମେତ ସମ୍ପୂର୍ଣ୍ଣ ଭାବେ ମଇଳା ପାଣିକୁ ବୈଜ୍ଞାନିକ ପଦ୍ଧତିରେ ସଫା କରି ପାରୁଛି । ଗାଡ଼ିରେ ଲାଗିଥିବା ମେସିନ୍ ଚାଲିବା ପାଇଁ ଏହା ନିଜସ୍ୱ ଶକ୍ତି ବ୍ୟବହାର କରିଥାଏ । ତେଣୁ ଯେକୌଣସି ସ୍ଥାନରେ ଏହା କାମ କରି ପାରିବ । ଏଥିରେ ମଇଳା, ଜୀବାଣୁ ସମେତ କ୍ଷାରୀୟତା ଦୂର କରାଯାଇ ପାରୁଛି ବୋଲି ସେ କହିଛନ୍ତି । ସେହିପରି ଆଇଏମ୍‌ଏମ୍‌ଟି ବାତ୍ୟା ବିପର୍ଣ୍ଣକ ପାଇଁ ଯୋଗାଇ ଥିବା ଖାଦ୍ୟ ବି ଆଧୁନିକ ଉପାୟରେ ପ୍ରସ୍ତୁତ ହୋଇଛି ।

ପାଳମପୁରରୁ ଆସୁଛି ୧ ଲକ୍ଷ ପ୍ୟାକେଟ୍ ସ୍ୱତନ୍ତ୍ର ଖାଦ୍ୟ

ପାରିବ । ଅପରପକ୍ଷେ ଆଇଏସ୍‌ବିଟି ପାଳମପୁରରୁ ଏକ ଲକ୍ଷ ଖାଦ୍ୟ ପ୍ୟାକେଟ୍ ଆସି ପହଞ୍ଚିବାର ଅଛି । ଦୁଆଦିଲ୍ଲା ସ୍ଥିତ ବୈଜ୍ଞାନିକ ଏବଂ ଔଦ୍ୟୋଗିକ ଅନୁସନ୍ଧାନ (ସିଏସ୍‌ଆଇଆର) ଦ୍ୱାରା ପରିଚାଳିତ ଏମ୍‌ଏମ୍‌ଟି ପକ୍ଷରୁ ବାତ୍ୟା ପ୍ରପାଞ୍ଚିତକ ପାଇଁ ସହାୟତା ପ୍ରଦାନ କରାଯାଉଛି । ତେବେ ସବୁଠାରେ ଉପାଦେୟ ହୋଇଛି ଜଳ ବିଶୋଧନ ଗାଡ଼ି । ଗୁଜରାଟର ଭାବନଗର ସ୍ଥିତ ସିଏସ୍‌ଏମ୍‌ଆରଆଇ ପକ୍ଷରୁ ସମ୍ପୂର୍ଣ୍ଣ ଭାବେ ସ୍ୱଦେଶୀ ଜ୍ଞାନକୌଶଳରେ ନିର୍ମିତ ଏହି ବିଶୋଧନ ଗାଡ଼ି ଘଣ୍ଟା ପ୍ରତି ୩ ରୁ ୪ ହଜାର ଲିଟର ପାଣି ସଫା କରି ପାରୁଛି । ଏହି ଗାଡ଼ି ପ୍ରଥମେ କାକଟପୁର ଓ ବର୍ତ୍ତମାନ ସତ୍ୟବାଦୀ ଅଞ୍ଚଳରେ ଲୋକଙ୍କୁ ପାନୀୟ ଜଳ ଯୋଗାଇ କରୁଛି । ଏହାର ଜଣେ

ମହାଶୁର ସ୍ଥିତ ସେଣ୍ଟ୍ରାଲ ପୂର୍ବ ଟେକ୍ନୋଲୋଜିକାଲ ରିସର୍ଚ୍ଚ ଇନ୍‌ଷ୍ଟିଚ୍ୟୁଟ୍ (ସିଏସ୍‌ଟିଆରଆଇ)ର ପରାମ୍ପରାଗରେ ସ୍ୱତନ୍ତ୍ର ଭାବେ ପ୍ରସ୍ତୁତ ହୋଇଥିବା ଖାଦ୍ୟ ପୂଡ଼ିଆରେ ଚପାତି, ପୋହା, ଉପମା ରହିଛି । ଏପରି ପ୍ରାୟ ୫୦ ହଜାର ପ୍ୟାକେଟ୍ ବଣ୍ଟନ କରାଯାଇ ଥିବା ବେଳେ ଆଇଏସ୍‌ବିଟି, ପାଳମପୁରରୁ ଆଉ ଏକ ଲକ୍ଷ ଖାଦ୍ୟ ପ୍ୟାକେଟ୍ ଆସି ଦୁଇଦିନ ଭିତରେ ପହଞ୍ଚିବ । ଆଇଏମ୍‌ଏମ୍‌ଟି କର୍ତ୍ତୃପକ୍ଷଙ୍କ କହିବା ଅନୁସାରେ ପାଳମପୁରରୁ ଆସୁଥିବା ପ୍ୟାକେଟ୍‌ରେ ଭାତ, ଡାଲିମା, ତରକାରୀ ରହିଛି, ଯାହା ଅନେକ ଦିନ ପର୍ଯ୍ୟନ୍ତ ଫରଷିତ ହୋଇ ରହି ପାରିବ । ଏହାକୁ ଦୂରତ ଗୋଟନ କରାଯାଇ ପାରିବ । ଆଇଏମ୍‌ଏମ୍‌ଟି, ଭୁବନେଶ୍ୱର ନିର୍ଦ୍ଦେଶକ ପ୍ରଫେସର ପୂଜାସତ୍ତ୍ୱ ବାସୁଙ୍କ ପ୍ରତ୍ୟେକ୍ଷ ତତ୍ତ୍ୱାବଧାନରେ ରିଲିୟ୍ କାର୍ଯ୍ୟ ପରିଚାଳିତ ହେଉଛି ।

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Samaja**





CSIR-IMMT

12th May, 2019



Kanak News (TV channel)

75 Years of
CSIR Touching Lives

'फनी' तूफान : सी.एस.आई.आर. की प्रौद्योगिकी से बची हजारों की जान

नई दिल्ली, 10 मई (एजेंसियां): वैज्ञानिक एवं औद्योगिक अनुसंधान परिषद (सी.एस.आई.आर.) की 2 प्रयोगशालाओं की प्रौद्योगिकियों से ओडिशा तथा आंध्र प्रदेश में गत दिनों आए 'फनी' तूफान समेत पिछले 10 सालों में आए कई चक्रवाती तूफानों में हजारों लोगों की जान बचाई जा सकी है।

सी.एस.आई.आर. के महानिदेशक शेखर सी. मांडे ने बताया कि वर्ष 1977 और 1999 में



ओडिशा में आए चक्रवाती तूफानों में तकरीबन 10-10 हजार लोग काल के शिकार हो गए थे लेकिन पिछले कुछ समयमें आए तूफानों में यह संख्या 20-30 या कभी-कभी इससे भी कम रही है। इसमें सी.एस.आई.आर. की प्रयोगशालाओं की भवन निर्माण प्रौद्योगिकियों का काफी योगदान रहा है।

उन्होंने बताया कि स्ट्रक्चरल इंजीनियरिंग रिसर्च सेंटर, चेन्नई और सेंट्रल बिल्डिंग रिसर्च इंस्टीच्यूट, रुड़की ने भवन निर्माण की जो तकनीकें विकसित की हैं उनके आधार पर करीब 10 साल पहले भुवनेश्वर में मॉडल बिल्डिंग बनाई गई थी। ओडिशा में सी.एस.आई.आर. ने उस समय 75 ऐसे भवन बनाए थे जो तूफान से पूरी तरह सुरक्षित हैं।

'फनी' से जगन्नाथ और कोणार्क मंदिर के ढांचे हुए क्षतिग्रस्त

ओडिशा में गत दिनों आए भयंकर तूफान 'फनी' से पुरी का ऐतिहासिक जगन्नाथ मंदिर और कोणार्क मंदिर भी प्रभावित हुए हैं और उनके ढांचे क्षतिग्रस्त हुए हैं। राज्य के मुख्यमंत्री नवीन पटनायक ने इन मन्दिरों के क्षतिग्रस्त होने की खबर मिलने पर केन्द्रीय संस्कृति मंत्री महेश शर्मा का ध्यान इस ओर आकर्षित किया है।

उन्होंने शर्मा से अनुरोध किया है कि केंद्र सरकार इसके लिए एक उच्च स्तरीय दल भेजकर मंदिरों के नुकसान का आकलन करे और इसके पुनरुद्धार की कार्यवाही करे। पटनायक ने पुरी की रथयात्रा शुरू होने के मद्देनजर इन दोनों प्राचीन मंदिरों की देखभाल और मरम्मत कार्य को चुस्त-दुरुस्त करने के लिए विशेष दिलचस्पी लेनी शुरू की है।

इस प्रौद्योगिकी का इस्तेमाल करते हुए ओडिशा के तटीय इलाकों में बड़े पैमाने पर पिरामिड ढांचे की छत वाले भवनों का निर्माण किया गया है जिससे अब वहां चक्रवाती तूफानों में घरों और लोगों की जान का नुकसान बेहद कम होता है। आंध्र प्रदेश में भी इस तरह के मॉडल भवन बनाए गए हैं।

जानकारी

कल पहली खेप भेजी जाएगी, आइएचबीटी के विशेषज्ञों की देखरेख में बन रही खिचड़ी

पालमपुर में तैयार हो रही ओडिशा के लिए खिचड़ी

जागरण संवाददाता, पालमपुर : ओडिशा के चक्रवाती तूफान प्रभावित जनता के लिए पालमपुर में खिचड़ी तैयार हो रही है। हिमालय जैवसंपदा प्रौद्योगिकी संस्थान में विशेष तौर अनुभवी विशेषज्ञ इसे बनवा रहे हैं। सोमवार को पहली खेप ओडिशा के लिए रवाना कर दी जाएगी। सामाजिक दायित्व को देखते हुए सीएसआइआर ने ओडिशा की जनता के लिए इसे विशेष तौर पर तैयार करवाया है।

खिचड़ी को विशेष तौर पर डिब्बों में बंद कर उसका कसाइनमेंट बनवाया जा रहा है। पालमपुर के अलावा इसे सीएसआइआर की अन्य लैबों में भी तैयार कर रहे हैं। खिचड़ी में प्रमुख तौर पर चावल, आलू और दाल को डाला गया है। इसके अतिरिक्त खनिजों से युक्त मिनरल बार



हिमालय जैव प्रौद्योगिकी संस्थान पालमपुर में बनाई गई खिचड़ी • जागरण

(चाकलेट) को भी वहां पर भेजा जाएगा। संस्थान के निदेशक

डाक्टर संजय कुमार बताते हैं कि करीबन बीस टन खाद्य सामग्री को ओडिशा भेजा जा रहा है। इस प्रकार की दुखद परिस्थितियों में राष्ट्रीय संस्थानों का दायित्व बनता है कि वे आगे आएँ और अपनी प्रौद्योगिकियों और उत्पादों से समर्थता के अनुरूप प्रभावित जनसमुदाय की सहायता करें। संस्थान में इसे प्रमुखता से तैयार किया जा रहा है। सोमवार को पहली खेप भेजी जाएगी।

केरल भी भेजी थी सामग्री

सीएसआइआर हिमालय जैवसंपदा प्रौद्योगिकी संस्थान पालमपुर ने पूर्व में भी केरल में आई बाढ़ के दौरान भी 2018 अगस्त में डिब्बा बंद भोजन को भिजवाया था। बाढ़ पीड़ितों को व्यापक मदद हुई थी क्योंकि उन्हें एकदम से खाने को सामान मिला था।

सीएसआइआर-आइएचबीटी एक प्रमुख संस्थान है, जो कि कृषि विज्ञान, जैव प्रौद्योगिकी, प्राकृतिक उत्पाद रसायन विज्ञान, खाद्य और न्यूट्रास्यूटिकल प्रौद्योगिकी, उच्च तुंगता जीव विज्ञान जैसे क्षेत्रों में अनुसंधान के लिए विख्यात है। अनुसंधान एवं विकास कार्यक्रम के रूप में संस्थान ने पारंपरिक खाद्य उत्पादों और कुपोषण और जीवन-शैली से संबंधित विकारों को लक्षित करने के लिए कई रेडी-टू-ईट खाद्य पदार्थों की व्यवसायिक उत्पादन के लिए प्रौद्योगिकियाँ विकसित की हैं, जिनमें एनर्जी बार, उच्च प्रोटीन पेय मिश्रण, स्फिरुलिना और शिटाके आधारित खाद्य और मूल्यवर्धित चाय उत्पाद, क्रिस्पी फ्रूट आदि प्रमुख हैं जो कि इच्छुक उद्यमियों के लिए व्यवसायिक उत्पादन के लिए उपलब्ध हैं।

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आईएमएमटी की ओर से तूफान प्रभावित इलाकों में राहत वितरण

भुवनेश्वर, आईएमएमटी की ओर से चक्रवाती तूफान में प्रभावित इलाकों में राहत सामग्री बांटी गई. नईदिल्ली स्थित बैज्ञानिक एवं ओद्योगिक अनुसंधान परिषद (सीएसआईआर) द्वारा गुरुवार को पुरी, कोणार्क, काकटपुर, सत्यवादी इलाके के विभिन्न जगहों पर राहत सामग्री का वितरण किया गया. महीसुर स्थित सीएसआईआर-सीएफटीआरआई द्वारा लोगों के लिए आवश्यक सामान भेजा गया. उसीप्रकार भावनगर स्थित सीएसआईआर-सीएसएमसीआरआई संस्थान की ओर से काकटपुर



इलाके में सहायता प्रदान की गई है. निर्देशक प्रॉफिसर एस.बासु ने सभी सीएसआईआर-आईएमएमटी के कार्य का परिचालन किया.

ଆଇଏମଏମଟିର ରିଲିଫ ବଣ୍ଟନ



• ଭୁବନେଶ୍ୱର, ପିଏନଏସ:

ନୂଆଦିଲ୍ଲୀସ୍ଥିତ ବୈଜ୍ଞାନିକ ଏବଂ ଔଦ୍ୟୋଗିକ ଅନୁସନ୍ଧାନ ପରିଷଦ (ସିଏସଆଇଆର) ଦ୍ୱାରା ବିକଶିତ ଖାଦ୍ୟ ପଦାର୍ଥ ତଥା ପାନୀୟ ଜଳଯୋଗାଣକାରୀ ମୋବାଇଲ ଡ୍ରାଟର ବସ ପୁରା ଜିଲ୍ଲାର କୋଣାର୍କ, କାକଟପୁର ଏବଂ ସତ୍ୟବାଦୀ ଅଞ୍ଚଳର ବିଭିନ୍ନ ସ୍ଥାନକୁ ରିଲିଫ ବଣ୍ଟନ କାର୍ଯ୍ୟ ନିମନ୍ତେ ପଠାଯାଇଅଛି । ମହାଶ୍ୱର ସ୍ଥିତ ସିଏସଆଇଆର-ସିଏଫଟିଆର ଆଇ ଦ୍ୱାରା ବିକଶିତ

ଏବଂ ପ୍ରସ୍ତୁତ ୪-୫ ଟନ ପ୍ୟାକେଟ ତତ୍କାଳୀନ ବ୍ୟବହାର ଉପଯୋଗୀ ଖାଦ୍ୟ ପଦାର୍ଥ ପଠାଯାଇଅଛି । ଭାବନଗର ସ୍ଥିତ ସିଏସଆଇଆର-ସିଏସଏମସିଆରଆଇ ସଂସ୍ଥାନ ଦ୍ୱାରା ବିକଶିତ ମୋବାଇଲ ଡ୍ରାଟର ବସ କାକଟପୁର ଅଞ୍ଚଳକୁ ତତ୍କାଳ ପାନୀୟ ଜଳ ଯୋଗାଣ ନିମନ୍ତେ ପଠାଯାଇଅଛି । ଏହି କାର୍ଯ୍ୟକୁ ସିଏସଆର ନିମନ୍ତେ ପଠାଯାଇଅଛି । ଏହି କାର୍ଯ୍ୟକୁ ସିଏସଆଇଆର- ଆଇଏମଏମଟିର ନିର୍ଦ୍ଦେଶକ ପ୍ରଫେସର ଏସ. ବସୁ

ତଦାରଖ କରୁଛନ୍ତି ଏବଂ ଗତ ୮ ତାରିଖରେ ଶୁଭାରମ୍ଭ କରିଛନ୍ତି । ଆଗକୁ ସିଏସଆଇଆର- ସିଏଫଟିଆରଆଇ ଦ୍ୱାରା ପ୍ରସ୍ତୁତ ୧୧ ତାରିଖରେ ଖାଦ୍ୟପଦାର୍ଥ ଫନାରେ କ୍ଷୟକ୍ଷତି ଲୋକମାନଙ୍କୁ ବଣ୍ଟନ ନିମନ୍ତେ ଆସୁଅଛି । ସିଏସଆଇଆର-ଆଇଏଟବିଟି ପଦ୍ମପୁର ମଧ୍ୟ ଏକ ଲକ୍ଷ କଏନ ପ୍ରାଥମିକ ମିଲ ପଠାଉଛନ୍ତି । ଆଇଏମଏମଟି ଦ୍ୱାରା ବିକଶିତ ୫୦୦ ଟୋନାଫିଲ ଡ୍ରାଟର ଫିଲଟର ମଧ୍ୟ ଲୋକମାନଙ୍କ ପାନୀୟ ଜଳ ନିମନ୍ତେ ବଣ୍ଟନ କରାଯିବ ।



CSIR-IMMT

10th May, 2019

ଆଇଏମ୍‌ଏମ୍‌ଟି ପକ୍ଷରୁ ରିଲିଫ ବଣ୍ଟନ

ଭୁବନେଶ୍ୱର, ୯।୫(ଆ.ପ୍ର): ନୂଆଦିଲ୍ଲୀସ୍ଥିତ ବୈଜ୍ଞାନିକ ଏବଂ ଔଦ୍ୟୋଗିକ ଅନୁସନ୍ଧାନ ପରିଷଦ (ସିଏସ୍‌ଆଇଆର୍) ଦ୍ୱାରା ବିକଶିତ ଖାଦ୍ୟ ପଦାର୍ଥ ତଥା ପାନୀୟ ଜଳ ଯୋଗାଣକାରୀ ମୋବାଇଲ୍ ଖିଟର ବସ୍ ପୁରୀ ଜିଲାର କୋଣାର୍କ, କାକଟପୁର ଏବଂ ସତ୍ୟବାଦୀ ଅଞ୍ଚଳର ବିଭିନ୍ନ ସ୍ଥାନକୁ ରିଲିଫ ବଣ୍ଟନ କାର୍ଯ୍ୟ ନିମନ୍ତେ ପଠାଯାଇଛି । ମହାଶୂରସ୍ଥିତ ସିଏସ୍‌ଆଇଆର୍-ସିଏଫ୍‌ଆର୍‌ଆଇ ଦ୍ୱାରା ପ୍ରସ୍ତୁତ ୪.୫ଟନ୍ ପ୍ୟାକେଟ୍ ତକ୍ତାଳ ବ୍ୟବହାର ଉପଯୋଗୀ ଖାଦ୍ୟପଦାର୍ଥ ପଠାଯାଇଛି । ଭାବନଗରସ୍ଥିତ ସିଏସ୍‌ଆଇଆର୍-ସିଏସ୍‌ଏମ୍‌ସିଆର୍‌ଆଇ ସଂସ୍ଥାନ ଦ୍ୱାରା ମୋବାଇଲ୍ ଖିଟର ବସ୍ କାକଟପୁର ଅଞ୍ଚଳକୁ ପାନୀୟ ଜଳ ଯୋଗାଣ ନିମନ୍ତେ ପଠାଯାଇଛି । ସିଏସ୍‌ଆଇଆର୍-ଆଇଏମ୍‌ଏମ୍‌ଟିର ନିର୍ଦ୍ଦେଶକ ପ୍ରଫେସର ଏସ୍. ବାସୁ ଏହାର ତଦାରଖ କରୁଛନ୍ତି । ଗତ ୮ ତାରିଖରେ ଏହାର ଶୁଭାରମ୍ଭ ହୋଇଛି । ଆଗକୁ ସିଏସ୍‌ଆଇଆର୍-ସିଏଫ୍‌ଆର୍‌ଆଇ ଦ୍ୱାରା ପ୍ରସ୍ତୁତ ୧୧ଟନ୍ ଖାଦ୍ୟ ପଦାର୍ଥ ଫଣି ପ୍ରଭାବିତ ଲୋକଙ୍କୁ ବଣ୍ଟନ ନିମନ୍ତେ ଯୋଜନା ହୋଇଛି । ସିଏସ୍‌ଆଇଆର୍-ଆଇଏମ୍‌ଏମ୍‌ଟି ପାଳମପୁର ମଧ୍ୟ ଏକ ଲକ୍ଷ ଖାଦ୍ୟ ମିଲ୍ ପଠାଉଛନ୍ତି । ଆଇଏମ୍‌ଏମ୍‌ଟି ଦ୍ୱାରା ବିକଶିତ ୫୦୦ ଟେରାପିଲ୍ ଖିଟର ଫିଲଟର ଲୋକଙ୍କୁ ବଣ୍ଟନ କରାଯାଇଛି ।



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8th May, 2019

CSIR special bus to help make water potable in Fani hit Odisha

New Delhi, May 7 (UNI) Council of Scientific and Industrial Research's special bus will help provide safe drinking water to the cyclone affected people of Odisha.

CSIR Director-General Shekhar C Mande told UNI that safe drinking water becomes a major problem after a place gets affected by something like a cyclone and therefore CSIR's bus which has a water filtration unit will help provide potable drinking water by purifying it. It is available in the area with a capacity of treating 2000 litres of water per hour.

Mr Mande said that the speciality of the bus was that it does not need any external power source as the bus engine powers the purifier.

This will be very useful in the area as the power supply has also taken a hit pertaining to the damage done by the cyclone.

Mr Mande said that the bus is based on the technology developed by by the CSIR's Central Salt and Marine Chemicals Research Institute that specialises in membranes.

Reverse osmosis

He said that the bus will reach the affected areas by Wednesday and commence its operation going across affected villages so that potable water can be provided to people.

this bus can purify any kind of dirty water and works on special membrane based technology along with reverse osmosis.

Around 20 such buses were sent to Kerala during the floods, he said.

Mr Mande said that it was not only this bus, but other technologies developed by the CSIR have been helpful in such situations that include cyclone proof structures that were built long ago in Bhubaneswar which were taken as model buildings to further develop cyclone proof structures that helped the state in giving shelter to affected people and saving them during such situations.

He said that around 75 buildings were built by CSIR in the state that were storm safe.

Mr Mande said that based on the structural pyramid design of these buildings many buildings have been built near the coastal areas of Odisha that are lesser prone to damage in such situations.

He also said that in the 'Fani' affected areas, CSIR has distributed one lakh special packets of food that have been specially prepared by Central Food Technology Research Institute. These contain nutritious food items that are ready to eat, he added.

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CSIR Touching Lives



CSIR-CSMCRI

8th May, 2019

How Gujarat bus comes to rescue of Fani-ravaged villagers in Odisha

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BHUBANESWAR: As Cyclone Fani paralyzed drinking water supply and contaminated many ponds and wells in worst affected Puri district, a customised bus housing a water purification and desalination plant has come to the rescue of thousands of parched villagers in the peak summer. The 40-ft-long bus was developed by the Central Salt and Marine Chemicals Research Institute (CSMCRI) at Bhavnagar in Gujarat in 2007-08.

Realizing the plight of the Fani-affected people, the CSMCRI sent the bus from Gujarat to Puri on May 7, four days after Fani devastated the coastal district.



Years of
CSIR Touching Lives



The indigenously developed bus can purify more than 40,000 litres of drinking water per day.

Led by senior scientist Dr Sanjay Patil, the bus reached Bhubaneswar on May 8 and conducted a site survey in Puri district with the officials of Panchayati Raj and drinking water department. "We are working in coordination with the state rural water supply and sanitation (RWSS) division. Our bus is moving to affected areas as per the guidance of the RWSS. We were stationed in several villages in Kakatpur and Satyabadi areas in the district since May 9," said Bhoumik Sutaria, a CSMCRI scientist associated with the high-tech bus.

Patil said the bus's plant can purify contaminated turbid, brackish and saline water and make it potable and good for drinking. The bus has a reverse osmosis (RO) desalination and ultra-filtration plant and consists of thin-film composite membrane filtration that can remove viruses and bacteria from water.

"At present, we are purifying at least 4,000 litres of water from ponds per hour. The purified water is being filled in RWSS tankers for smooth supply," Sutaria said. The bus works on 23 kilowatt power produced by generator attached to the vehicle's engine. "We currently face power supply problem in Odisha and are using the generator. The bus has also solar panels on its roof and can draw part of the solar power to maintain basic energy needs," he said.

Villagers at Biragobindpur where the bus was stationed on Tuesday heaved a sigh of relief after getting pure drinking water. "We are obliged to the CSMCRI for sending us the bus to our village in this crisis time. We were struggling to get drinking water as our village pond was filled with garbage, tree branches and dust," said Subrata Mishra, a villager.

Sources said the specially designed bus was mobilized in a number of states, hit by natural calamities in the past. The CSMCRI had despatched the bus to Odisha during flash floods in 2013 and quenched the thirst of countless villagers in Ganjam, Kendrapada and Jagatsinghpur districts.

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75 Years of
CSIR Touching Lives

Gujarat water bus to Puri villages' rescue

TIMES NEWS NETWORK

Bhubaneswar: As Cyclone Fani paralysed the drinking water supply and contaminated many ponds and wells in the worst-hit Puri district, a customised bus with a water purification and desalination plant has come to the rescue of thousands of parched villagers.

The 40-foot-long bus was developed by the Central Salt and Marine Chemicals Research Institute (CSMCRI) at Bhavnagar in Gujarat in 2007-08.

To help the Fani-affected people, the CSMCRI sent the bus from Gujarat to Puri on May 7, four days after the cyclone devastated the coastal district. The indigenously developed bus can purify more than 40,000 litres of drinking water every day. Led by senior scientist Sanjay Patil, the bus reached Bhubaneswar on



People gather to collect purified water from the bus

May 8 and conducted a site survey in Puri district with officials of the panchayati raj and water supply department.

“We are working in coordination with the state rural water supply and sanitation (RWSS) division. Our bus is moving in the affected areas as per the guidance of the RWSS. The bus has been moving across several villages in Kakatpur and Satyabadi areas in the district since May 9,” said Bhoumik Sutaria, a CSMCRI scientist associated with the high-tech bus.



CFTRI to establish disaster Management centre

CSIR-CFTRI

6th May, 2019

The city-based Central Food Technological Research Institute (CFTRI), which supplies food items to the victims of disasters, has decided to set up a Disaster Management Centre, to supply food items immediately after any calamity is reported. CFTRI has been lending its hands, by supplying food items since many years. At present, the institution is preparing packed food items for the victims of the cyclonic storm 'Fani' in Odisha, Andhra Pradesh and West Bengal. The authorities have already by supplying food items since many years. At present, the institution is preparing packed food items for the victims of the cyclonic storm 'Fani' in Odisha, Andhra Pradesh and West Bengal. The authorities have already sent food items to Odisha. The institute had supplied food items to Kerala and Kodagu district in 2018, during floods. CFTRI has decided to establish the centre to send the food items to the affected regions, at short notice. The food will be prepared at the centre, using technology developed by CFTRI, round the year. The CFTRI has also decided to adopt a technology, which can produce food items with six months of shelf life, developed by the Institute of Minerals and Materials Technology (IMMT), Bhubaneswar. CFTRI director K S M S Raghava Rao said the institution has been sending food items to calamity-hit areas for the past several years. The staff, as well as their family members, students and volunteers, are involved in preparing the food items. Now, it takes two to three days to prepare the food items. With the launch of the new centre, it is possible to send the necessary items within no time, he said. The director said the institute has approached the Council of Scientific and Industrial Research (CSIR) to join hands for the purpose. "We have several food preparing equipment and we need more resources. Thus, we have urged the CSIR to support the cause," he said.

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[Deccan Herald](#)

CSIR Touching Lives



Khichdi Cans and Nutri Bars Relief distribution to School Children of 15 Blocks / NAC School of Puri District





Relief activities in slum area of Puri





Relief Materials for Fani victims



Relief Distribution in RRL Project School among school students





Science as Saviour



Tackling the recent cyclone Fani has brought many laurels to the country and some valuable lessons. The robust demonstration of science and technology (S&T) behind all aspects of preparedness, and consequent administrative action to save people and property, has indeed been highly laudable. This has also brought our abilities to deal with natural calamities into sharp focus in the international arena. The accurate prediction of cyclonic storm, mapping its trajectory and predicting the likely affected areas with high accuracy have been possible through painstaking collection of meteorological data and its computational modelling.

Another important aspect of mitigating effects of a cyclonic storm is to facilitate and achieve the ability of mass movement of people to safer areas at a short notice. Typically, safer areas are made up of buildings or shelters, which are resistant to high winds, storm surges and rains and where the velocity of swirling winds gradually diminishes. Floods that accompany cyclonic storms in coastal areas are usually responsible for the majority loss of human lives. It is apparent that design of the shelter buildings should be such that they not only withstand high winds, but also storm surges and flooding. CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai, pioneered the design of multi-purpose cyclone shelter in 1996-97. In the past, lack of appropriately designed buildings had been one of the factors causing high casualties. CSIR-SERC partnered with the Indian Red Cross Society to deploy the cyclone-resistant shelters across Odisha.

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It is estimated that these shelters have saved lives of lakhs of people during cyclone Phailin in 2013, and recently during cyclone Fani. The “cyclone shelters”, designed by CSIR-SERC, are typically constructed on stilts keeping in view the floods accompanying the cyclonic storms. The buildings are rectangular structures, but rounded at the corners (aerodynamically shaped) with a view to achieving a smooth air flow (with reduced vortices) and thus enabling the buildings to withstand the intensity of the gusty winds. Moreover, the rooftops are also rounded, with upwards curving. Finally, the design of the buildings is tested in one of the most significant steps, which is to carry out the design in an Atmospheric Boundary Layer Wind Tunnel. The wind tunnel is a highly specialised facility available in only a few places in the country such as CSIR-SERC, Chennai, and IIT-Kanpur etc. It provides an opportunity to test a model building in simulated atmospheric wind flow conditions, where the model is subjected to various wind speeds, and many different parameters are monitored in order to estimate as well as minimise the wind-induced loading. These results also form the basis of developing guidelines for wind load evaluation to be adopted in the Indian Codes of Practice. Research has played a key role in saving lives of millions of people in cyclone Fani. All the scientific fraternity of the country—university researchers, IITs, IISc, India Meteorological Department and the national laboratories such as the CSIR—deserve applause. It is correctly said that scientific discoveries are made anywhere around the globe, but technological advances are made for the local needs. Challenges remain in other areas of tackling natural calamities, but considering the strength of scientific community in India across CSIR laboratories, universities and other academic institutions, and the creative technological solutions that they are capable of evolving, there is no doubt that these challenges will be handled effectively in future.

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